

WHAT IS CLAIMED IS:

1. A laser light source device, comprising: a light source unit, wherein said light source unit comprises one condensing optical system for condensing a laser beam emitted from one semiconductor laser, another condensing optical system for condensing a laser beam emitted from another semiconductor laser, and  
5 a focusing optical system for focusing and projecting the laser beam condensed by said one condensing optical system and the laser beam condensed by said another condensing optical system onto an incident face of one light guiding means.

2. The laser light source device according to claim 1, further comprising  
10 a focusing unit, wherein said focusing unit comprises one condensing optical system for condensing a laser beam emitted from an emission face of light guiding means of one light source unit from a plurality of light source units, another condensing optical system for condensing a laser beam emitted from an emission face of light guiding means of another light source unit, and a focusing optical  
15 system for focusing and projecting the laser beam condensed by said one condensing optical system and the laser beam condensed by said another condensing optical system onto an incident face of one light guiding means.

3. The laser light source device according to claim 2, further comprising a plurality of focusing units, and a condensing optical system for respectively  
20 condensing a laser beam emitted from each emission face of each light guiding means in the plurality of focusing units and a focusing optical system for focusing and projecting a laser beam, which is focused after being condensed by the each condensing optical system, onto an incident face of one light guiding means.

4. The laser light source device according to claim 1, wherein said  
25 condensing optical system is a collimating lens system.

5. The laser light source device according to claim 2, wherein said condensing optical system is a collimating lens system.

6. The laser light source device according to claim 3, wherein said condensing optical system is a collimating lens system.

5 7. The laser light source device according to claim 1, wherein said one condensing optical system and said another condensing optical system are disposed in substantially symmetrical positions centralizing on an optical axis of said focusing optical system.

8. The laser light source device according to claim 2, wherein said one  
10 condensing optical system and said another condensing optical system are disposed in substantially symmetrical positions centralizing on an optical axis of said focusing optical system.

9. The laser light source device according to claim 3, wherein said one  
15 condensing optical system and said another condensing optical system are disposed in substantially symmetrical positions centralizing on an optical axis of said focusing optical system.

10. The laser light source device according to claim 4, wherein said one  
20 condensing optical system and said another condensing optical system are disposed in substantially symmetrical positions centralizing on an optical axis of said focusing optical system.

11. The laser light source device according claim 1, wherein said light guiding means is an optical fiber, and an incident face of the optical fiber is disposed in a focal point of said focusing optical system.

12. The laser light source device according claim 2, wherein said light guiding means is an optical fiber, and an incident face of the optical fiber is disposed in a focal point of said focusing optical system.

13. The laser light source device according claim 3, wherein said light  
5 guiding means is an optical fiber, and an incident face of the optical fiber is disposed in a focal point of said focusing optical system.

14. The laser light source device according claim 4, wherein said light guiding means is an optical fiber, and an incident face of the optical fiber is disposed in a focal point of said focusing optical system.

10 15. The laser light source device according claim 7, wherein said light guiding means is an optical fiber, and an incident face of the optical fiber is disposed in a focal point of said focusing optical system.

16. The laser light source device according to claim 3, wherein said light source unit and said focusing unit are optically connected with inverted cascade.

15 17. The laser light source device according to claim 1, wherein laser beams generated by semiconductor lasers, which are disposed in said light source unit, have different wavelengths.

18. The laser light source device according to claim 2, wherein laser  
20 beams generated by semiconductor lasers, which are disposed in said light source unit, have different wavelengths.

19. The laser light source device according to claim 3, wherein laser beams generated by semiconductor lasers, which are disposed in said light source unit, have different wavelengths.

20. The laser light source device according to claim 4, wherein laser beams generated by semiconductor lasers, which are disposed in said light source unit, have different wavelengths.

21. The laser light source device according to claim 7, wherein laser  
5 beams generated by semiconductor lasers, which are disposed in said light source unit, have different wavelengths.

22. The laser light source device according to claim 11, wherein laser beams generated by semiconductor lasers, which are disposed in said light source unit, have different wavelengths.

10 23. The laser light source device according to claim 16, wherein laser beams generated by semiconductor lasers, which are disposed in said light source unit, have different wavelengths.

24. The laser light source device according to claim 1, wherein the semiconductor lasers, which are disposed in said light source unit, are controlled  
15 individually.

25. The laser light source device according to claim 2, wherein the semiconductor lasers, which are disposed in said light source unit, are controlled individually.

26. The laser light source device according to claim 3, wherein the  
20 semiconductor lasers, which are disposed in said light source unit, are controlled individually.

27. The laser light source device according to claim 4, wherein the semiconductor lasers, which are disposed in said light source unit, are controlled individually.

28. The laser light source device according to claim 7, wherein the semiconductor lasers, which are disposed in said light source unit, are controlled individually.

29. The laser light source device according to claim 11, wherein the  
5 semiconductor lasers, which are disposed in said light source unit, are controlled individually.

30. The laser light source device according to claim 16, wherein the semiconductor lasers, which are disposed in said light source unit, are controlled individually.

10 31. The laser light source device according to claim 17, wherein the semiconductor lasers, which are disposed in said light source unit, are controlled individually.

32. A surface inspection apparatus, comprising: a laser light source device, said laser light source device comprising a light source unit, wherein said  
15 light source unit comprises one condensing optical system for condensing a laser beam emitted from one semiconductor laser, another condensing optical system for condensing a laser beam emitted from another semiconductor laser, and a focusing optical system for focusing and projecting the laser beam condensed by said one condensing optical system and the laser beam condensed by said another  
20 condensing optical system onto an incident face of one light guiding means.